

(c) an AV signal switcher at said third location, in communication with said third codec and said AV path, for receiving and routing said AV signals to a location other than said third location if said AV signals are intended to be processed at said other location, and arranged to communicate with said third codec, such that images of said first participant, compressed by said first codec and routed to said second location via said third location, are not decompressed by said third codec.

57. (Once Amended) The teleconferencing system of claim 55, where[by]in the video image and spoken audio of said first participant routed to said second location, via said third location, can be reproduced at the workstations of both said first and second participants.

58. The teleconferencing system of claim 55, wherein said AV path includes dedicated links between said first and third locations and between said second and third locations.

59. The teleconferencing system of claim 55, wherein said AV path includes dial-up connections between said first and third locations and between said second and third locations.

60. The teleconferencing system of claim [9] 55, wherein said AV path supports both dial-up connections and dedicated links between said first and third locations and between said third and second locations.

61. The teleconferencing system of claim 60, wherein said AV path includes a dial-up connection between said first and third locations and a dedicated link between said third and second locations.

62. The teleconferencing system of claim 55, further comprising a video mosaic generator, in communication with said AV path, for combining the captured images of a first and second participant into a mosaic image for reproduction at least one workstation.

63. (Once Amended) The teleconferencing system of claim 62, further comprising means, in communication with said AV path, for combining a portion of said mosaic image with a captured image of another of said participants to generate a composite mosaic image of the captured images of said participants, [whereby] and wherein said composite mosaic image can be reproduced at the workstation of at least one of said participants.

64. (Once Amended) The teleconferencing system of claim 55, further comprising an audio summer, in communication with said AV path, for [combining] receiving the captured audio of a first, second and third participant and combining the received audio of the second and third participants into an audio sum for reproduction at the workstation of said first participant.

65. (Once Amended) The teleconferencing system of claim 64, further comprising:

(a) \_\_\_\_\_ means, in communication with said AV path, for combining a [portion] part of said audio sum with the captured audio of another of said participants to generate a composite audio sum for reproduction at the workstation of at least one of said participants.

66. (Once Amended) [A] The teleconferencing system of claim 55 further comprising:

(a) at least one signal router for routing at least said AV signals among participant's workstations in such a way so as to optimize the carrying of AV signals between said workstations.

67. (Once Amended) [A] The teleconferencing system of claim 66 wherein said router optimizes said signal routing based on either the actual or the anticipated state of said AV path.

✓  
Cancel claims 68 to 70.

71. The teleconferencing system of claim 55, wherein said AV path includes at least one trunk and at least one codec associated therewith.

✓  
Cancel claims 72 to 186.

✓  
Add the following new claims:

62-187.

The teleconferencing system of claim 55, further comprising:

- 62
- (a) a data conference manager for managing a data conference, during which data can be shared among a plurality of said participants and displayed on the monitors of their respective workstations, and for managing said videoconference by utilizing a data network operating system and data network protocol of said first network; and
- (b) an AV conference manager in communication with said data conference manager and said second network, for managing a videoconference, during which the video image and spoken audio of one of said participants can be reproduced at the workstation of another of said participants by utilizing said data network operating system and data network protocol of said first network.

188. The teleconferencing system of claim 187, further comprising a distributed video mosaic generator, in communication with said AV path, for combining at least a portion of said mosaic image with a captured image of a third participant to generate a distributed mosaic image of the captured images of said first, second and third participants for reproduction at at least one workstation.

189. The teleconferencing system of claim 188 further comprising a close-up selector for selecting the image of one of the participants in said distributed mosaic image and replacing said distributed mosaic image with the image of said selected image.

190. The teleconferencing system of claim 187, further comprising an audio summer, in communication with said AV path, for receiving the captured audio of a first, second and third participant and combining the received audio of the second and third participants into an audio sum for reproduction at the workstation of said first participant.

191. The teleconferencing system of claim 190 wherein the AV reproduction capabilities of at least the workstation of the first participant includes a plurality of speakers, the system further comprising an audio control for controlling the reproduction of said audio sum at said first participant's workstation such that the composition of the audio originating from each of the second and third participants reproduced at each speaker is dependent on a position of the images of the second and third participant in said reproduced mosaic image.

192. The teleconferencing system of claim 191, further comprising an echo canceller to reduce echo during the reproduction of said audio sum.

193. The teleconferencing system of claim 187, wherein said first and second networks employ physically separate paths.

194. The teleconferencing system of claim 55, wherein said first and second networks employ physically separate paths.

*Sub 4* 195. The teleconferencing system of claim 65 wherein the AV reproduction capabilities of at least the workstation of the first participant includes a plurality of speakers, the system further comprising an audio control for controlling the reproduction of said audio sum at said first participant's workstation such that the composition of the audio originating from each of the second and third participants reproduced at each speaker is dependent on a position of the images of the second and third participant in said reproduced mosaic image.

*2* 196. The method of conducting a teleconference among a plurality of participants having workstations with associated monitors for displaying visual images, and with associated AV capture and reproduction capabilities for capturing and reproducing video images and spoken audio of the participants, the workstations being interconnected by a first network, the network providing a data path for carrying digital data signals among the workstations, the method comprising the steps of:

- (a) moving AV signals representing video images and spoken audio of the participants, along an AV path connecting the workstation of a first participant at a first location to the workstation of a second participant at a second location via a third location;
- (b) compressing the AV signals codecs in communication with the AV path;
- (c) receiving the compressed signals at the third location; and
- (d) routing the received AV signals to a location without decompressing the signals at the third location.

197. The method of conducting a teleconference of claim 196, further comprising the steps of:

(a) combining the captured images of a first and second participant into a mosaic image;

and

(b) reproducing the mosaic image at at least one workstation.

198. The method of conducting a teleconference of claim 197, further comprising the steps of:

(a) combining a portion of the mosaic image with a captured image of another of the participants to generate a composite mosaic image of the captured images of the participants; and

(b) reproducing the composite mosaic image at the workstation of at least one of the participants.

199. The method of conducting a teleconference of claim 196, further comprising the steps of:

(a) receiving the captured audio of a first, second and third participant;

(b) combining the received audio of the second and third participants into an audio sum;

and

(c) reproducing the audio sum at the workstation of the first participant.

200. The method of claim 196 further comprising the steps of:

(a) routing at least the AV signals among participant's workstations in such a way so as to optimize the carrying of AV signals between the workstations.

201. The method of claim 200 wherein the optimization is based on either the actual or the anticipated state of the AV path.

*Sub H6*  
202. The method of conducting a teleconference of claim 196, further comprising the steps of:

*C2*  
(a) managing a data conference, during which data is shared among a plurality of the participants and displayed on the monitors of their respective workstations; and  
(b) managing a videoconference, during which the video image and spoken audio of one of the participants can be reproduced at the workstation of another of the participants by utilizing the data network operating system and data network protocol of the first network.

203. The method of conducting a teleconference of claim 202, further the steps of:

(a) combining at least a portion of the mosaic image with a captured image of a third participant to generate a distributed mosaic image of the captured images of the first, second and third participants; and  
(b) for reproducing the distributed mosaic image at at least one workstation.



204. The method of conducting a teleconference of claim 203 further comprising the steps of:

- (a) selecting the image of one of the participants in the distributed mosaic image; and
- (b) replacing the distributed mosaic image with the image of the selected image.

205. The method of conducting a teleconference of claim 202, further comprising the steps of:

- (a) receiving the captured audio of a first, second and third participant;
  - (b) combining the received audio of the second and third participants into an audio sum;
- and
- (c) reproducing the audio sum at the workstation of the first participant.

206. The method of conducting a teleconference of claim 205 wherein the AV reproduction capabilities of at least the workstation of the first participant includes a plurality of speakers, the method further comprising the steps of:

- (a) controlling the reproduction of the audio sum at the first participant's workstation such that the composition of the audio originating from each of the second and third participants reproduced at each speaker is dependent on a position of the images of the second and third participant in the reproduced mosaic image.

REMARKS